Benedict Nwachukwu, MD MBA HSS Sports Medicine Institute 610 West 58th Street, New York, NY 10019 Office 646.885.8250 Fax: 646.885.8252 www.manhattansportsdoc.com



<u>Accelerated Protocol</u> Minimally Invasive Achilles Repair Rehab

First 2 Weeks After Surgery (Follow-up at 1 week and 2 weeks after surgery with Dr. Nwachukwu)

Goals

- Protection of repair
- Reduction of swelling to allow for soft tissue healing

Weight bearing

• Non-weight bearing with crutches and/or scooter

Brace

- Splint in plantarflexion
- Follow-up 1 week after surgery and change to cast with ankle in plantarflexion for another week--this means 2 weeks total of no weight on your leg

Exercises

• ELEVATE, ELEVATE, ELEVATE!

Weeks 2-4 (Follow-up at 4 weeks after surgery with Dr. Nwachukwu) Goals

- Initiate formal physical therapy (2 times per week)
- Begin graduated weight bearing
- <u>Active</u> dorsiflexion up to neutral

Weight bearing

- Initiate PWB in boot with 2 crutches then go down to 1 crutch and finally no crutches in the boot **Brace**
 - Tall CAM boot with FOUR ¹/₂" heel wedges. Remove 1 wedge every 5-7 days as able. Should be no wedges by Week 6 follow-up

Treatment

• Gentle scar massage and cryotherapy

Exercises

- Active dorsiflexion to neutral only
- No active plantar flexion
- Pain-free ankle isometrics: inversion, eversion, dorsiflexion and sub-max plantar flexion
- Open-chain hip and core strengthening in boot

Week 4 – 6 (Follow-up at 6 weeks after surgery with Dr. Nwachukwu)

Goals

- Regain ankle ROM (active ROM between 5^0 DF and 40^0 PF)
- May sleep out of boot if comfortable now

Weight bearing

• Full

Brace

• Boot at all times with 1 inch heel lift. Can remove for hygiene and exercises

Precautions

• Avoid overstressing the repair (forceful movements in the sagittal plane, forceful plantar flexion while in a dorsiflexed position, aggressive PROM)

Treatment

- Gentle cross fiber massage to achilles tendon to release adhesion between tendon and peritendon
- Cryotherapy and other modalities add PRN

Exercises

- Active ankle eversion/inversion
- Passive dorsiflexion both with knee in extension and flexed to 35 40⁰ until gentle stretch on achilles
- Begin standing calf stretch at 5 weeks (knee flexed and extended)
- Continue eversion, inversion and plantar flexion isometrics with resistance bands
- Initiate balance exercises (double leg wide base \rightarrow narrow base)
- Initiate stationary bike with minimal resistance
- Initiate pool exercise in total buoyancy with floatation device if wound is fully healed
- Hip and core strengthening

<u>7 – 12 weeks</u>

Goals

- Normalize gait on level surface without boot or heel lift
- Active ROM between 15[°] DF and 50[°] PF
- Good control and no pain with functional movements

Brace

• Supportive athletic shoes with ankle brace

Precautions

• Avoid high impact activity

Exercises

- Full PROM/AROM all planes. Avoid forceful dorsiflexion
- Progress standing calf stretch
- Initiate double leg toe raise and advance weight as tolerated
- Initiate functional movement (squat, steps ups, lunges in all planes)
- Advance balance training to wobble board and single leg activity
- Initiate frontal and transverse plane agility drills (progress from low velocity to high and than gradually add in sagittal plane drills)
- Progress cardiovascular training
 - Stationary bike, stairmaster, swimming, chest level water exercise, treadmill walking

<u>3 – 6 months</u>

Goals

- Ankle strengthening
- Regain normal gait
- Initiate running

Precautions

• Normal shoes.

Exercises

- Progress double leg toe raises to body weight (1.5 times body weight athlete)
- Advance to single leg toe raises as tolerated
- Running progression at 5 months
 - Trampoline jogging → treadmill → outdoor running

<u>6 – 9 months</u>

Goals

• Return to sport/job specific training

Precautions

- Post-activity soreness should resolve after 24 hours
- Avoid excessive activity related swelling and/or pain

Exercises

- Progress running to sprinting
- Initiate agility: figure of 8 and cutting drills 6 months
- Jumping progression 6 7 months
- Sport/job specific training
- Full return to sport/strenuous work 8 9 months